

AIRFOIL SHAPE FOR A TURBINE BUCKET

ABSTRACT OF THE DISCLOSURE

First stage turbine buckets have airfoil profiles substantially in accordance with Cartesian coordinate values of X, Y and Z set forth Table I wherein X and Y values are in inches and the Z values are non-dimensional values from 0.05 span to 0.95 span convertible to Z distances in inches by multiplying the Z values by the height of the airfoil in inches. The X and Y values are distances which, when connected by smooth continuing arcs, define airfoil profile sections at each distance Z. The profile sections at each distance Z are joined smoothly to one another to form a complete airfoil shape. The X, Y and Z distances may be scalable as a function of the same constant or number to provide a scaled up or scaled down airfoil section for the bucket. The nominal airfoil given by the X, Y and Z distances lies within an envelop of ± 0.150 inches in directions normal to the surface of the airfoil.